

## ***BUILDING A BETTER WORLD GREEN – 701***

OIL SLICK DISPERSANT  
OIL SPILL CLEANUP  
SOIL RECLAMATION – FOR SHORELINE CONTAMINATION

- ◆ BBWG 701 is a super concentrated, high efficiency, low toxicity bio-surfactant for use in breaking down and dispersing fresh and weathered hydrocarbons.
- ◆ BBWG 701 contains a class of natural compounds and plant extracts which aid in bringing chemicals, which are not water soluble, into solution. This product promotes rapid bacteria growth for bio-remediation of hydrocarbons.
- ◆ BBWG 701 is effective in accelerating the process of natural dispersion when mechanical recovery is not feasible and supporting indigenous bacteria and microbial inoculants in ex-situ and in-situ environments. BBWG 701 has high solubilizing properties and does not adsorb to soil.
- ◆ The unique, Organic Miracle process for production of BBWG 701 extracts polysaccharides, enzymes, vitamins, hormones, polyuronic acids and humic acids, all of which contribute to the rapid growth and sustaining life of bacteria.
- ◆ When compared to chemicals, the efficacy of BBWG 701 is significantly higher. In addition, BBWG 701 is 100% organic and has a significantly lower impact on the environment.
- ◆ By employing bio-remediation, pollutants are degraded into products that are part of naturally occurring cycles

### **BBWG 701 BENEFITS**

- ◆ Contains microbes that literally dissolves hydrocarbons
- ◆ Works best with water
- ◆ Sludge reduction > 50%
- ◆ Hydrocarbon recovery > 90%
- ◆ Black" > Water Recovery > 90%
- ◆ Recovered water can be drained directly to containment or wastewater treatment.
- ◆ Improves sludge setting capacity
- ◆ Significantly reduces cleanup time and cost

### **APPLICATION – SURFACE AND SUBMERGED OIL SLICKS**

- ◆ A part of the surfactant molecule used in BBWG 701 has an attraction to oil (i.e. it is oleophilic). While another part has an attraction for water (i.e. it is hydrophilic). When BBWG 701 is applied onto an oil slick, the interfacial tension between the oil and water is reduced, resulting in

the formation of finely dispersed oil droplets. Typically these droplets will vary in size and, although the larger ones may rise to the surface, a significant amount will remain in suspension.

- ◆ When dispersion is successful, a characteristic plume will spread slowly downward from the surface shortly after BBWG 701 is applied. Optimum distribution can be achieved thru mechanical agitation, natural wave action, boat propellers and wakes.
- ◆ To disburse submerged oil slicks, dilute BBWG 701 at a rate of 90 to 110 gallons per surface acre in water and inject the diluted solution directly into the oil slick. Injection can be carried out with the aid of high pressure pumps and under water lances.
- ◆ As the mass disperses, come large pockets of oil may rise to the surface. When this occurs, an additional application of BBWG 701 may be required. Effective distribution of BBWG 701 throughout the oil slick is crucial to the success of the process.

#### APPLICATION – SHORELINES

- ◆ BBWG 701 dispersants can also be used on shorelines including beaches, rocks, soil and sea walls. Shorelines subject to strong wave action are cleaned quickly and naturally. Re-application may be necessary in areas where dense hydrocarbon deposits have accumulated.
- ◆ When BBWG 701 is applied to viscous oils on shorelines, where retention time exceeds 24 hours, dilution rates can be increased. Typical dilution rate in water – 50 to 100 PPM.

#### SAFETY

- ◆ The materials used in the production of BBWG 701 are derived from naturally occurring and sustainable sources. BBWG 701 is non-caustic, non-corrosive, non-flammable and environmentally safe. In addition, it is not harmful to animals, plants and humans.

#### COMPLIANCE

- ◆ Fully complies with EPA Toxic Substance Control Act (TSCA) and the rules, orders and regulations promulgated there under including:
  - a) Sections 4, 5, 6 & 7; Title 40 Chapter 1 707.20 thru 707.75;
  - b) 40 CFR Sections 704.3, 710.2(e) and 720.3 (c); and
  - c) Sections 5 and 13, reference 42FR64583
  - d) Does not contain marine pollutants as defined in 49 CFR 171.8

#### ADDITIONAL INFORMATION

- ◆ For additional information about BBWG 701, please contact Organic Miracle, Inc. at (602) 369-7559